

NUCLEAR DIVISION NEWS

UNION
CARBIDE

A Newspaper for Employees of the Nuclear Division, Union Carbide Corporation

Vol. 2 — No. 7

OAK RIDGE, TENNESSEE

Thursday, April 8, 1971

Carbide Scholarship Goes to Libby Snyder

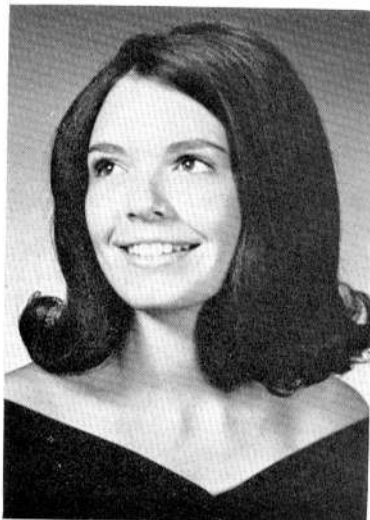
Libby Ann Snyder, daughter of Mr. and Mrs. Robert R. Snyder, 112 Decatur Road, Oak Ridge, has been selected to attend a Washington Congressional Workshop as a Union Carbide Scholar. The father is in Barrier Manufacturing in the Operations Division at Oak Ridge Gaseous Diffusion Plant.

Miss Snyder was recommended for the honor by the faculty at the Oak Ridge High School. Her nomination was supported by Union Carbide Corporation's Nuclear Division.

As a recipient of the honor, Miss Snyder will participate in a seminar from July 18-29. Participants are housed at Mount Vernon Junior College where most of the seminar sessions will be conducted.

The curriculum for the seminar includes classes, discussions with members of Congress, attendance at House and Senate Chamber sessions and committee meetings, and talks by Cabinet members and other national leaders, both in and out of government. In addition, participants will visit embassies, and will be guests of the President at White House ceremonies.

Miss Snyder, a senior at Oak Ridge High School, has an "A"



Libby Ann Snyder

average. She was chairman of the Oak Ridge delegation to the United Nations Assembly in Washington, D. C., a Student Council representative, member of the school band, secretary of the National Honor Society and President of the Anchor Service Club.

In addition, she was Miss United Fund for Anderson County and, in 1970, was runner-up in the Oak Ridge Junior Miss Contest.

As a Union Carbide Scholar, the full cost of Miss Snyder's participation in the Congressional Seminar program is being defrayed by the Corporation.

Anderson County United Fund Sets Budget Hearings

Interested in learning about where the money goes in a particular United Fund agency?

The United Fund of Anderson County has begun budget hearings for all organizations associated with or planning to join the UF. Y-12's Harwell Smith, Jr., chairman of the budget sessions, reports that all meetings are open to the public, which is invited to attend and participate.

Sessions will continue throughout April at Donora Hall, Room 207, Adams Lane, Oak Ridge. Donora Hall is located between the Armory and the Regional Science Center across the Turnpike from the Garden Apartments.

During these sessions, Budget Committee members and interested persons discuss individual requests for 1972 funds by each UF agency. Services, plans, and proposals are reviewed carefully, Smith explains, and "there is no better way to learn first-hand about the excellent jobs our United Fund agencies are doing."

Already reviewed earlier this month have been budgets of the Camp Fire Girls, Girl Scouts of America, Boys' Club of Oak Ridge, and Boy Scouts of America. Scheduled for the remainder of the month are:

Tonight (Thursday, April 8): Mental Health Center, 7 p.m.; Daniel Arthur Rehabilitation Center, 7:45 p.m.; and Emory Valley School and Sheltered Workshop, 8:30 p.m.

April 13: Scarboro Day Care Center, 7 p.m.; Youth Haven, Inc., 7:45 p.m.; and Anderson County (Continued on Page 6)

FRIDAY HOLIDAY

April 9, Good Friday, is an official holiday for Nuclear Division employees.

No employee is required to be at work unless his presence is required for security or continuous operation.

Under NASA-AEC Agreement

ORGDP Designs New Equipment Aimed at 'Bottling' Hot Plasma

The Oak Ridge Gaseous Diffusion Plant has designed a special container to house experimental equipment aimed at "bottling" hot plasma—high temperature ionized gas which theoretically could be controlled to provide power for a virtually unlimited number of uses.

The National Aeronautics and Space Administration-Lewis Research Center in Cleveland, Ohio, requested the system, called the "Superconducting Magnetic Mirror Facility," for experiments directed toward harnessing nuclear fusion—the thermonuclear combination of light elements into heavier ones with a resulting release of energy.

A prototype model based on ORGDP's design is being fabricated by the Cryenco Corporation of Denver, Colo. In addition to use in the plasma research, the system will advance the state-of-the-art in the use of large-diameter, high-field intensity superconducting magnets.

Held by Magnetic Fields

Milo Swanson was NASA's technical representative at the Lewis Research Center; J. A. Parsons, E. L. Halstead, and J. E. Brewer were in charge of Union Carbide Corporation's efforts. The design work was done through an interagency agreement between NASA and the Atomic Energy Commission.

In the proposed system, hydrogen and deuterium are heated and excited to high temperatures and velocities by ion cyclotron resonance and radio frequency waves. At extremely high temperatures these plasma lose electrons, becoming a balanced mixture of positively charged nuclei and negatively charged free electrons.

Controlled magnetic fields then confine the electrically charged particles. Ordinarily, the plasma

particles would move out randomly, but the magnetic field exerts an inward pressure, which in the ideal situation would balance the plasma particles so that energy is not lost in bouncing around the container walls. This controlled plasma is a potential fuel.

Straps Developed at ORGDP

To maintain superconductivity, the magnets will be cooled in liquid helium to -452° F., only 8° above absolute zero. This extremely low temperature permits electricity to flow with virtually no resistance. The magnets and spacers will be supported in the container by low-heat-conductivity, high-strength fiberglass suspension straps.

These straps, developed by ORGDP, have the strength required to withstand the comprehensive load of the magnets. In addition to their extremely low coefficient of heat conductivity, the straps retain their strength over a wide temperature range.

Spacing between the magnets can be varied to create the required magnetic field configuration. Internal copper heat shields with liquid nitrogen circulating inside are used as buffers, or cold bodies, to reduce heat transmission and the usage of liquid helium.

ORMAK Is Another

Union Carbide conducts another major fusion project at the Oak Ridge National Laboratory, where scientists and engineers are working with a new thermonuclear (Continued on Page 6)

Taft, Seadrift Plants to Expand

An expansion of Union Carbide Corporation's ethylene oxide facilities at Taft, La., and Seadrift, Tex., and of its ethanolamines facilities at Seadrift, has been announced. One hundred million pounds per year of new ethylene oxide capacity will be added at each location and the ethanolamines capacity will be increased by 30 percent, to 150 million pounds per year.

The ethylene oxide expansions are being made to the corporation's newest ethylene oxide units. The Taft unit went on-stream in 1968 with a capacity of 350 million pounds per year and the Seadrift unit, also with a capacity of 350 million pounds per year, was completed in 1969. At the time they were built, both of these units incorporated advanced technology and sophisticated computerized instrumentation.

During the expansions, further innovations and modifications are being made so that they will be the largest, most economical ethylene oxide production units in the world. Each will have a capacity of 450 million pounds per year. Completion is scheduled for the second quarter of 1971.

Basic Chemical

The expansion of these facilities will permit the orderly shut-down of older, smaller, less efficient units and maintain Union Carbide's position as the leading producer of ethylene oxide.

Ethylene oxide is used as a basic chemical for the production of hundreds of industrial and consumer products. In addition to Prestone anti-freeze, it is used to make the "soft" detergents that keep streams and rivers foam-free and polyester fibers that go into various types of apparel. Other

end products include aircraft de-icing fluids, lubricants, paint thickeners, and brake fluids

Varied Uses

The ethanolamines expansion will come on-stream in two phases. The first phase is scheduled for completion in the second quarter of 1971 and the second phase early in 1972.

Ethanolamines are used for acid gas removal in the petroleum and natural gas industries and also as intermediates in the manufacture of surfactants with a wide variety of applications in shampoos, detergents, cosmetics, and textiles.

Y-12ers' Technical Papers Appear in Trade Journals

Technical articles authored by Oak Ridge Y-12 Plant men appeared in the March issues of two nationally published technical journals.

An article by R. W. Schede, Development Division, entitled "Add Laser Interferometers to Your Production Machines," appears in **Automation**. The article points out that development of the continuous gas laser has made it possible to take the interferometer out of the standards laboratories and use it on precision production machines as a length-measuring instrument.

R. V. Miskell, Engineering Division, authored an article entitled "Tape Codes and Formats for Numerical Control." It appeared in the March issue of **Instrument and Control Systems**, and explains the terminology of codes and formats used in the numerical control industry.



ARTS COUNCIL LEADERS—The Arts Council of Oak Ridge, currently conducting its annual United Arts Fund drive within the business community, is featured on page 2. Shown are: seated, from left, Arthur H. Snell (ORNL), Council president; Yvonne Lovely (ORNL), secretary; and John Reeve (Nuclear Division auditing manager), treasurer. Standing are Stanley P. Leibo (ORNL), vice-president, and, at right, L. C. Toomer (Computing Technology Center), chairman of the Arts Fund campaign.

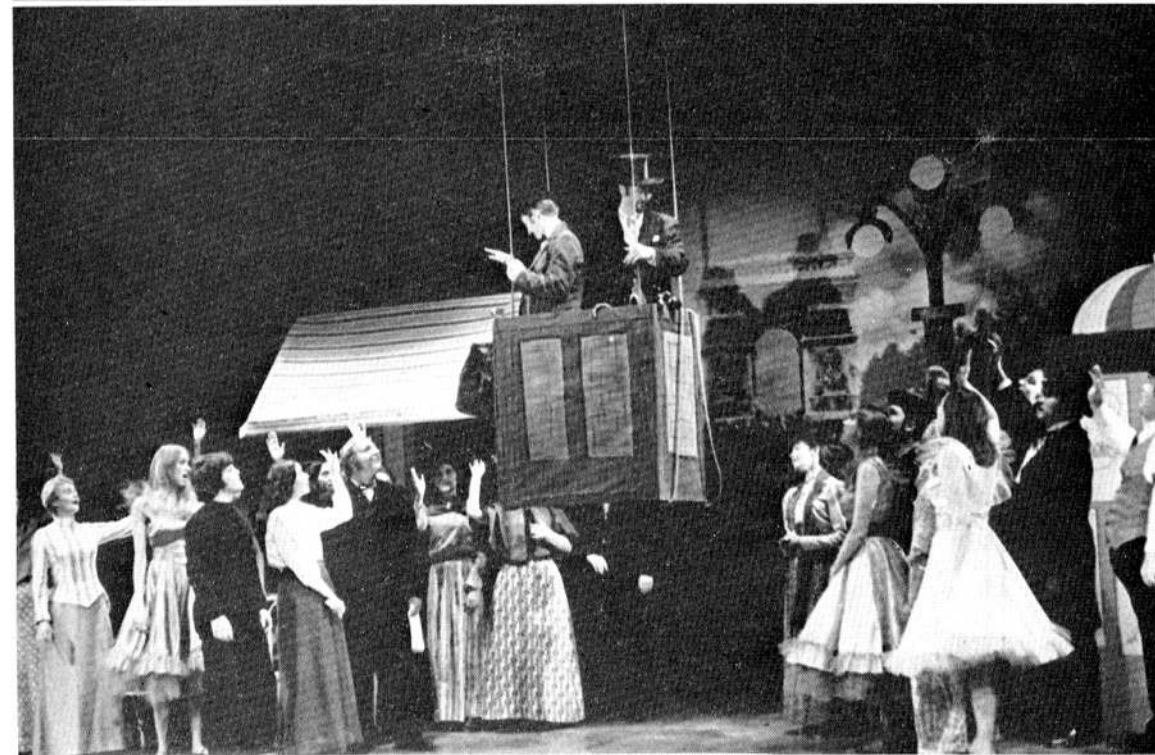
Pappas Speaks At Gatlinburg ISA Conference

A paper reviewing the principles and design of special analytical instruments developed at the Oak Ridge Gaseous Diffusion Plant will be presented at the 17th Annual Southeastern Conference of the Instrument Society of America at Gatlinburg, Tenn., May 11-13.

The report, co-authored by W. S. Pappas, J. G. Million, and C. W. Weber, all of ORGDP's Laboratory Division, will describe analyzers developed for application in the gaseous diffusion process of uranium enrichment. Pappas will make the presentation.

The analyzers are characterized by their resistance to corrosive fluoride gases, simplicity in design, low maintenance requirements, and adaptability to process control. Included will be a family of analyzers for condensable gases, based on thermo-pneumatic principles. Special gas chromatographic equipment and techniques will also be described.

Although some of the instrumentation was developed to solve specific problems for the gaseous diffusion process, the authors report, much of it is also applicable to other industrial processes.



Quality Performances

Photos, from the top, are: The Oak Ridge Symphony in concert, Waldo Cohn conducting. Next, a view from "Maggie's Magic Teapot," a recent performance by the Junior Playhouse. Shown are, from left, Ernest Earley, Mike Day, Elaine Barton, Zella Dworkin, and Rene Nicklow. Then, in the third photo, is a scene from the immensely successful Community Playhouse production of "Around the World in 80 Days." At left, we see young local dancers preparing for a performance by the Oak Ridge Civic Ballet Association. They are, from left, Debbie Walburg, Beth Anderson, and Susan Alston. (Photos by Ruth Carey, L. C. Toomer).

Something for Everyone

Nearly All Oak Ridgers Benefit Through Arts Council Activities

By JOHN HAFHEY

Nearly every Oak Ridge family, either directly or indirectly, benefits from the Arts Council of Oak Ridge.

- One of every five Ridgers belongs to one or more of the arts organizations — as major partners, Oak Ridge's Civic Ballet Association, Civic Music Association, Community Art Center, Community Playhouse, Junior Playhouse, and Festival; and, as affiliates, the Foothills Craft Guild and Carbide Camera Club.

- During 1970, some 50,000 attended concerts, plays, art exhibitions, ballets, and other events sponsored by Arts Council members.

- The "always-something-doing" atmosphere, with a quality and quantity of cultural activities far above what would be expected for a city of Oak Ridge's size, attracts tourists, brings in new business, and spurs enthusiasm and community pride.

Holds It All Together

And the main group holding all

of this together is the Arts Council, which, through a policy-making council of 27 arts group representatives and elected members-at-large, coordinates activities throughout the year which provide organized support for the community's cultural activities.

Each individual group, of course, manages its own internal activities, such as soliciting members and planning independent events. The Arts Council, not a practicing artistic group itself, has the job of being community arts business manager — raising supplemental funds from business and industry, making appropriate grants, and coordinating special events.

In common with nearly all modern cities, the business and professional community of Oak Ridge takes pride in the artistic life, and provides financial support to the creative and performing arts. The Arts Council receives the funds of the major donors such as the City of Oak Ridge, Union Carbide's Nuclear Division, the Chamber of Commerce, and Oak Ridge Associated Universities, and it organizes the United Arts Fund appeal. Since State aid has become available, the Arts Council works with the Tennessee Arts Commission and receives modest financial support from the Commission.

The Arts Council was founded and received its charter as a non-profit organization in 1956. Since that time, its budget and its effectiveness have steadily grown.

Drive Now Underway

The Arts Council also organizes and sponsors the Arts Festival of Oak Ridge, an event in which all arts groups participate, and it brings to Oak Ridge special events beyond the range of primary interest of the individual organizations. Examples in recent years are sponsorship of the professional plays "Who's Afraid of Virginia Woolf," and "The Subject Was Roses," and a lecture by C. Northcote Parkinson, the originator of the celebrated Parkinson's Laws.

The Council is now well into its most important single activity of the year — the United Arts Fund drive, during which arts-group representatives contact local businessmen and others to raise the funds which make it possible for Oak Ridge's creative and performing arts to broaden and improve their programs. (See related story below.)

The idea of the drive is similar to that of the United Fund. Rather than have each of the participating organizations contact businesses separately, with a tremendous duplication of both time and effort, the Arts Fund drive gives the city's business and professional people an opportunity to help all Oak Ridge arts organizations to continue and expand their services through one gift to all six main groups.

Toomer Heads Drive

Lamar C. Toomer, Systems Technology Department, Computing Technology Center, has been named chairman of the 1971 United Arts Fund drive.

This is the fifth straight year that Oak Ridge arts groups have banded together through the Arts Council of Oak Ridge to conduct one drive, primarily among Oak Ridge businesses, institutions, and professional men, for donations (Continued on Page 6)

Arts Groups At a Glance

The Oak Ridge Art Center — 510 members. Budget \$21,000. Attractive gallery-studio building. 280 students in painting, sculpture, ceramics. County educational program. Ten exhibitions per year in the gallery. Picture rentals. Craft sales. Lectures. Annual craft exhibition and sale. Estimated viewers per season, over 20,000.

The Oak Ridge Civic Ballet Association—230 members. Budget \$5,200. Classes. Performances. Professional direction. Two major performances per season with professional artists. Season attendance, 2,700.

The Oak Ridge Civic Music Association—1,200 members. Budget \$17,800. Eight major concerts per season. Professional direction. Four chamber music recitals — best professional quality. Free coffee concerts, and youth concerts. Supports Symphony Orchestra. Supports Community Chorus. Assists public school string program. Season attendance, 8,000.

The Oak Ridge Community Playhouse—1,330 members. Budget \$36,500. Five plays, a musical, and two studio productions per season. Operates own theatre. Professional direction. Stagecraft. Costume collection. More than 500 in cast and crews. Season attendance, 10,500.

The Oak Ridge Junior Playhouse—620 members. Budget \$3,400. Four performances per year for school-age audiences. Wide participation of junior actors. Imported professional actors. Season attendance, 6,000.

The Oak Ridge Festival — The 1971 Festival will be a coordinated fall effort of all the groups with a folksy theme. Special events sponsored by the Arts Council.

The Foothills Craft Guild — 60 members. All kinds of handicrafts in practice and in education. Exhibitions and sale. A nonprofit Tennessee corporation dedicated to high standards in creation. Scholarship offered.

The Carbide Camera Club — 100 members. Portraiture, landscapes, special effects — the arts of photography at their best. Annual salon.

Ph.D. in Chemistry To James Franklin



James C. Franklin

James C. Franklin, Production Assay, recently was granted a Ph.D. degree in analytical chemistry from The University of Tennessee.

Franklin, a native of St. Charles, Ky., holds a B.S. degree from Western Kentucky State College and an M.S. degree from the University of Alabama. He taught school at Sturgis, Ky., and also at Millport, Ala. He did student teaching briefly at the University of Alabama.

The Y-12 chemist lives at 141 Cumberland View, Oak Ridge. Mrs. Franklin is the former Shirley Jean Gosa. They have a daughter, Sarah.

Franklin served in the U. S. Army from 1955 until 1957 and attained the rank of first lieutenant in the infantry reserve.

A member of the American Chemical Society, and the American Society for Mass Spectrometry, Franklin belongs to the Sigma Xi.

The subject of his thesis was "Time Resolved Spark-Source Mass Spectrometry — the Effects of Spark Duration on Ion Intensity Relative Sensitivity Factors and Precision of Analysis."

Five Golf Leagues Set For Y-12 Summer Play

It looks as if Y-12 may have as many as five golf leagues ready for play soon. Action will take place on greens at Cedar Hill, Lenoir City; Southwest Point, Kingston; Melton Hill, Clinton; Whittle Springs, Knoxville; and South Hills, Oak Ridge.

A minimum of eight twosomes is required for each league. Cut-off date for entering is announced as Friday, April 16.

Call twosomes in to Recreation, extension 3-7109.



More Y-12ers celebrate important Spring 'dates' with Union Carbide Corporation. Congratulations.

25 YEARS

Robert W. Schede, Fabrication Systems Development, April 1.

Robert A. Riordan, Mechanical Inspection, April 2.

Robert K. Bennett, Jr., Laboratory Development, April 3.

20 YEARS

Joseph E. Morgan, Guard Department, April 1.

John G. Harber, Jr., Chemical Services, April 2.

John L. Noel, Engineering Division, April 2.

Harry C. Francke, Materials Engineering Development, April 2.

William F. Smith, ORNL Chemical Services, April 2.

Dorothy L. Brashears, Chemical Services, April 3.

Grover C. Gipson, Guard Department, April 3.

Clara S. Johnson, Alpha Five Processing, April 4.

Carl E. Bennett, Alpha Five Processing, April 5.

Sam N. Tadlock, Area Five Maintenance, April 6.

Mabel C. Butcher, Chemical Services, April 6.

William D. Blevins, Research Services, April 9.

Russell F. Moyers, Electrical and Electronics, April 9.

Leroy A. Taylor, Tool Grinding, April 9.

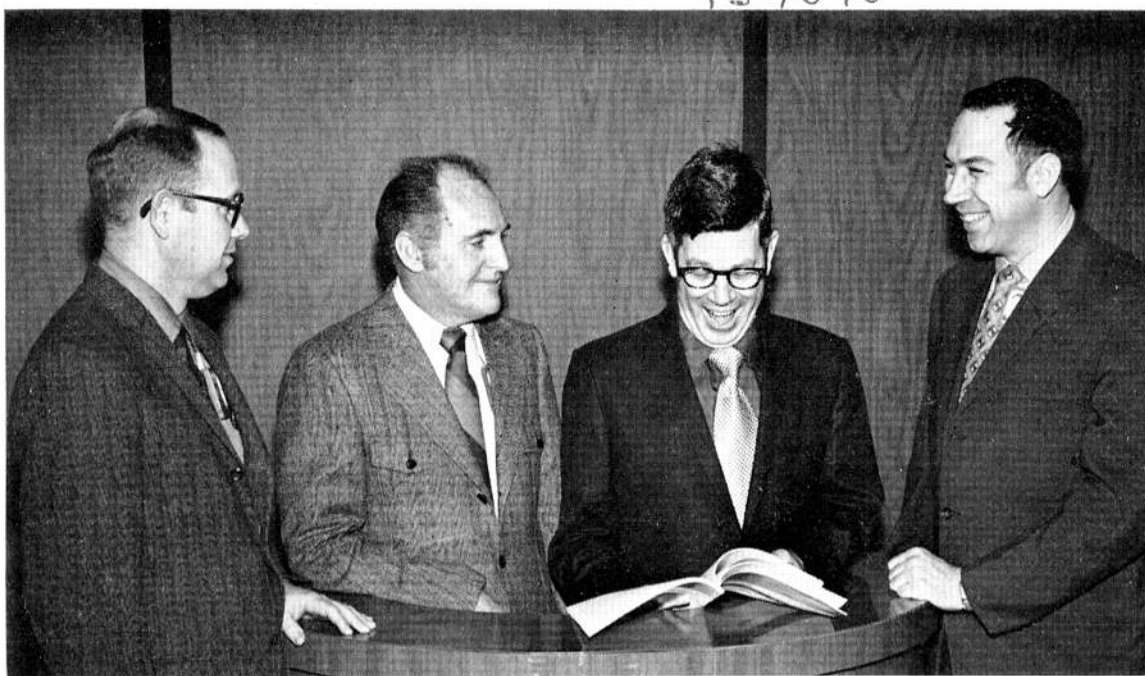
Margaret B. Haggard, Beta Two Chemistry, April 9.

Thomas Kimbrough, Building Services, April 9.

Clarence E. Phillips, Electrical and Electronics, April 9.

Herbert F. Kidd, Jr., Dimensional Services, April 9.

(Continued on Page 4)



Y-12 AUTHORS—Perhaps the most comprehensive engineering design standard for the safe installation of X-ray and other radiation generating equipment has been written by Oak Ridge Y-12 Plant personnel. The standard, published as a Y-12 technical report, was authored by, from left, W. J. Mason, F. W. Pipes, C. M. West and D. N. Smith. Copies of the report have been forwarded to several laboratories and installations throughout the United States.



Ride wanted from East Village section, Atlanta Rd., Oak Ridge, to Pine Ridge Portal, straight day. Ron Dickinson, plant phone 3-5139, home phone Oak Ridge 483-4928.

Will join car pool from East Village to Central Portal, straight day. Nathan Schulman, plant phone 3-7904, home phone Oak Ridge 483-8207.

Y-12ers Author X-Ray, Nuclear Paper In Area of Industrial Personnel Safety

The Oak Ridge Y-12 Plant, one of the nation's foremost users of X-ray and nuclear radiation generation equipment, has issued an engineering design standard for the safe installation of such equipment that could serve as a model for other installations, firms and institutions throughout the United States.

The Y-12 Plant has more than 80 X-ray generators in addition to 50 gamma and neutron power sources used in testing materials for various nuclear and space pro-

grams. The X-ray generators range in power from 50 kilovolts to 12-million electron volts, while the gamma and neutron sources range from a few millicuries to several hundred curies.

The report, Y-1754 "X-ray and Nuclear Radiation Facilities, Personnel Safety Features," is believed to be the most comprehensive engineering design standard for radiation generating equipment ever to be issued. Copies of the report have been forwarded to a number of private laboratories and firms in addition to AEC installations known to be users of such equipment. Additional copies are available from the National Technical Information Service, U. S. Department of Commerce, Springfield, Va. 22151.

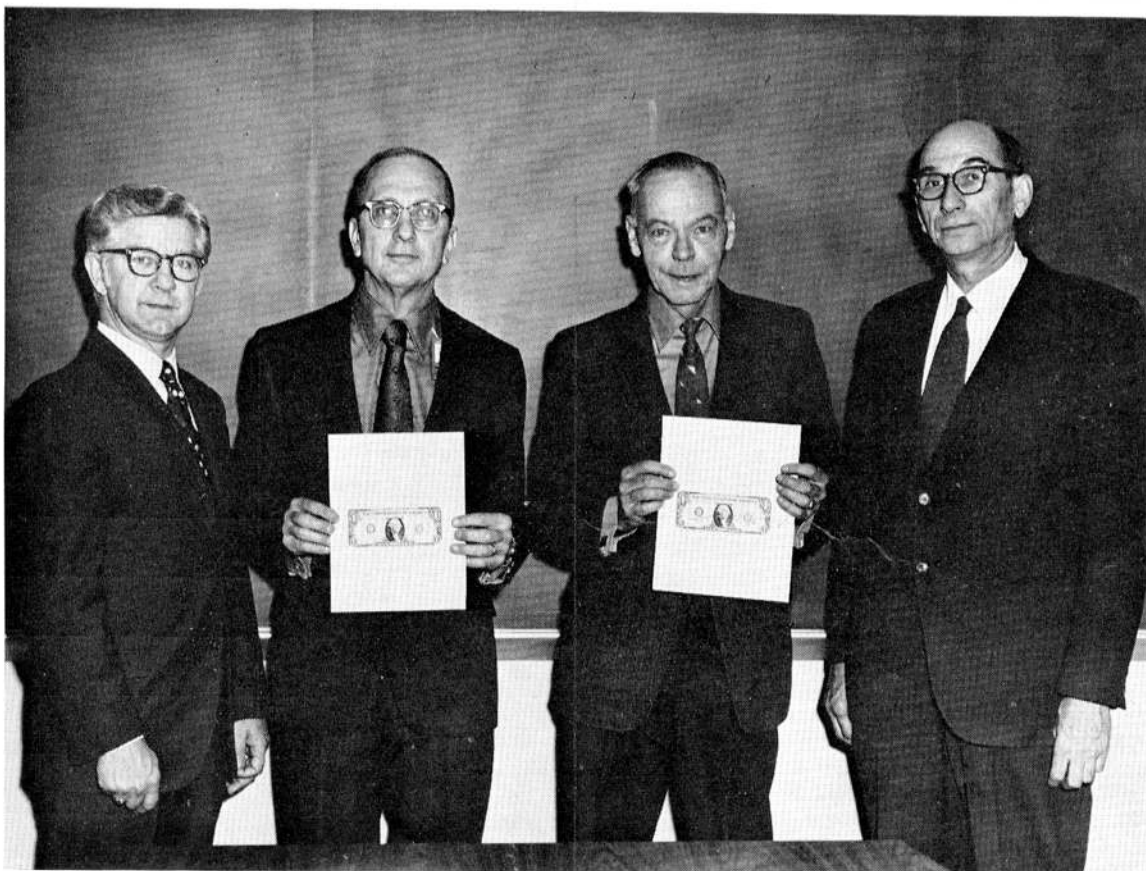
Authors of the report were W. J. Mason, E. W. Pipes, D. N. Smith and C. W. Yest, of Y-12, and T. R. Rucker, a former employee. They were assisted by a committee composed of T. H. Barton, L. E. Burkhart, V. C. Jackson, D. A. Jones, C. M. Knowles, D. L. Mason, J. D. McLendon, G. W. Oliphant, E. Roberts, Jr., H. G. Smith, S. G. Snow, L. M. Van Arsdall and H. W. Zang.

Anodes Have Advantage As C Race Narrows Down

The Anodes have bounced back into the lead of the C Bowling race, after a tilt with the Fireballs. They move out into first place a mere one point ahead of the Sunflowers.

Jim Thompson, Badgers, recently rolled a 221 game, and Preston Wallace, Big Five, bowled a 227 on March 29.

Team	W	L
Anodes	37	15
Sunflowers	36	16
Badgers	33½	18½
Instrument Engineers	33	19
Rollmasters	29	23
Jaguars	26	26
Parabusters	25	27
Fireballs	23	29
Rounders	21½	30½
Purple Pygmies	17	35
Royal Flush	17	35
Big Five	14	38



PATENT APPLICATION—G. S. Petit, Oak Ridge Gaseous Diffusion Plant, and C. A. Kienberger, Y-12's Production Assay, received patent application letters for their development, 'A Method for Preparing Stable Actinide Peroxide Sols.' The development took place before Kienberger transferred here from ORGDP. From left, are C. W. Weber, Chemical Analysis Department, ORGDP; Kienberger, Petit, and J. C. Barton, superintendent of the Laboratory Division at ORGDP.

SAFETY SCOREBOARD

The Y-12 Plant Has
Operated
62 Days Or
2,403,000 Man-Hours
(Unofficial Estimate)

Through April 4
Without A Disabling Injury
SAFETY AT HOME,
AT WORK, AT PLAY



NEW JOURNEYMAN ELECTRICIANS—These men recently completed Y-12's two-year apprenticeship program to graduate as journeyman electricians. The program qualifies them to work with all types of electrical and electronic equipment, including instrumentation, computers and numerically-controlled equipment. From left, on the front row are: E. G. Stevens, J. W. Miller, B. Simmons, I. Sturgeon, K. S. Hicks and J. M. McGill. In the second row are R. J. Roberson, B. L. Doyle, Q. A. Jefferson (face hidden), W. T. Weeks and C. E. Forney. In the third row are G. A. Justice, B. E. Weaver, D. P. Adkisson, B. A. Ford and C. E. Hagy. In the fourth row are C. E. Robinson (representing ATLC on General Apprenticeship Committee), J. W. Ebert (Maintenance Division superintendent), J. B. Martin, T. G. Evensen, J. R. Williams and B. G. White. Not pictured is W. R. Pickett. Five of the new journeymen began the training after graduating from the Training and Technology Program.

Swingsters Have Classic Lead; Race Nears Finish

The Swingsters are two and one-half point leaders in the Classic Bowling race, which narrows down to two more weeks of rolling.

Len Hart, Eightballs, has returned to his old 'pro' status again; on March 25, he rolled a 257 game . . . and 661 series!

Last week the Tigers' Frank Tiller put a 244 game on the scoreboard.

League standings follow:

Team	W	L
Swingsters	37	15
All Stars	34½	17½
Markers	33	19
Bumpers	33	19
Eightballs	32	20
Screwballs	30½	21½
Playboys	28	24
Smelters	26	26
Has Beens	24	28
Rebels	24	28
Rippers	23	29
Eagles	20½	31½
Tigers	19½	32½
Spliters	19	33
Cubs	17	35
Rojo's	15	37

Referee Urges Spectator Attendance for Athletics

Walt Simmons, one of the referees in basketball action had these observations on the recently completed league and tournament in inter-plant competition:

"The final curtain fell (March 31) on the plant basketball season. It has been a very exciting season. The calibre of basketball took an upturn this year. We had more good young players to join this year, giving the league more overall balance. Although the GBU's took all honors (the league, the tournament, and the play-off between Y-12 and ORNL) there was much improvement in other teams which give the GBU's some anxious moments. I think those who participated this year got more enjoyment out of their participation than in years past. I feel that there would be more fan activity if employees would come out and see the type of basketball that is played in the league.

"Now that the basketball is over and the weather is getting warm, why not shake out the kinks and

West Point Appointment Goes to Y-12er's Son



William D. McSpadden

A Y-12er's son has been notified of his appointment to the United States Military Academy at West Point. William David McSpadden, son of Mr. and Mrs. S. B. McSpadden, 5513 Cliffwood Rd., Knoxville, will graduate from West High School, Knoxville, in June, and report to the Academy July 1.

McSpadden's father is in Utilities Administration. His mother teaches in the Knoxville School System. There are two other McSpadden children, Sam, an engineering senior at The University of Tennessee, and Mary who attends Northwest Junior High School.

HORSESHOE PITCHERS

Twosomes wishing to compete in the three-plant Horseshoe League should enter their names in the league.

The Recreation Department number at Y-12 is 3-7109; at ORGDP, 3-3097; and at ORNL, 3-6723.

League action takes place at the City Courts, near the Tennis Courts in Jackson Square, Oak Ridge.

get in shape for a good summer of softball?
"Batter Up!"

Spliters Maintain Slim Starlite Kegler Margin

The Spliters still keep their slim lead as the Carbide Starlite League goes down to the wire.

The Latecomers' F. Kitts carded a 236 game on March 25, and rolled a 676 series!

Last week it was the Mix-Ups J. R. Jones with a 210 scratch game and the Latecomers posting a 2428 handicap series, to go with the 2466 they rolled the week before!

League standings follow:

Team	W	L
Spliters	20	7
Latecomers	19	8
Pin Boys	16	11
Mix Ups	15	12
Rollers	15	12
Raiders	12	15
Woodpeckers	12	15
Wild Cats	11	16
Marauders	8	19
Comets	6	21

Alley Cats Face Twisters In Mixed Alley Roll-Off

The Alley Cats raked honors in last week, taking the Mixed Bowling League's last half crown. They face the Twisters this week in the big roll-off.

The Alley Cats consist of Jeri Kobisk, Vickey Steward, Bill Patrick and Bill Johnson. The Twisters are Donna and Spence Ferguson, and Lou and Bill Sahr. Their match was set for last night, April 7.

Larry DeRoos, Cougars, got hot recently and rolled a 210 game . . . a 521 scratch series, boosted to a 620 handicap series.

Final standings follow:

Team	W	L
Alley Cats	37	19
Rollers	33	23
Twisters	33	23
Friskies	28	28
Cougars	25	31
Hits & Misses	24	32
Goofers	23	33
Roses 'n Thorns	21	35

NO PAYLESS TOMORROW

Here today, gone tomorrow . . . that's the story of most people's paycheck nowadays. Make sure that your tomorrows won't be payless . . . buy U. S. Savings Bonds today. Remember, they now pay five and one-half percent interest when held to maturity of five years and 10 months.

Y-12 Milestones

(Continued from Page 3)

sional Inspection, April 11.

Joseph H. Milligan, Alpha Five Processing, April 12.

Roy C. Crawford, General Metal Fabrication Shop, April 13.

Lawrence O. Heath, Jr., Alpha Five Processing, April 16.

Robert E. Lively, General Metal Fabrication Shop, April 16.

J. D. Hall, Radiation Safety, April 16.

Wyatt Atwood, Buildings, Grounds and Maintenance Shops, April 16.

James B. Strickland, Research Services, April 16.

Jeanette C. McCown, Production Analysis, April 16.

15 YEARS

John W. Ellison, Jr., Beta Four Forming, April 1.

Dan D. Stroud, Maintenance Division, April 2.

Bobby L. Grogan, Electrical and Electronics, April 3.

Glynn L. Kitchings, Environmental Control Engineering, April 15.

Billie H. Britton, Production Analysis, April 18.

Fred M. Pickering, Dimensional Inspection, April 18.

10 YEARS

William H. Overbey, Process Maintenance, April 1.

Chad L. Duckworth, Dimensional Inspection, April 3.

Roy W. Campbell, Dimensional Inspection, April 4.

Emery T. Rose, Nondestructive Testing, April 4.

Joe W. Pryor, 9766 Machine Shop, April 9.

Clyde D. Feazell, Beta Four Heavy Machine Shop, April 9.

Thomas L. White, General Machine Shop, April 9.

Carl H. Parks, A-2 Shops, April 9.

Kiplinger Takes Firings In High Power Rifle Set

Don Kiplinger, ORNL, won the first match of the All Carbide League High Power Tournament with a 456 out of 500. Jack Mrochek and Arvin Quist, both of ORNL also, followed with 446 and 445 consecutively.

Other scores were:

Firer	Score
A. A. Abbatiello, ORNL	433-6x
Jack Huff, Y-12	433-2x
Vic Fowler, ORNL	427
Larry Weston, ORNL	419
Huge Bertini, ORNL	414
Dudley Hewitt, ORNL	413
Dennis Chilcote, ORNL	404
Joe Crowell, ORNL	377
Bert Searles, Y-12	374
Hicklin Harrel, AECOP	347
Bob Darnen, ORGDP	299
Ray Ward, ORNL	297
Wayne Morrison, ORNL	293

Henderson Daughter Named Mademoiselle Berea Board Member



Ruthaleen Henderson

Ruthaleen Henderson, a senior at Berea (Ky.) College, has been accepted to Mademoiselle Magazine's College Board. Three days before the deadline for entry, she sent in the first phase of her application in a project entitled "Me in Profile and Fashion."

Ruthaleen, daughter of Renfro Henderson, Biology Division, is a senior at Berea, and an active student in campus activities. As Mademoiselle states it she will "keep them informed by reporting trends, attitudes, ideas, events, and communicating the 'way it should be' on and off the campus." If the College Board considers her articles important enough to share with the millions of student readers, they will be published.

Upon being granted board membership, Ruthaleen was entitled to compete for a guest editorship with the magazine. In this competition, she turned in a series of photos and comments compiled during her short visit in Mexico. She will be notified later concerning the competition. Should she win, it will entitle her to a month in New York City, working with some of the editors of Mademoiselle and guest editors from other colleges.

In her entry, Ruthaleen included a series of photographs where she modeled some of the newest fashions with scenes of the Kentucky college campus as background.

The Hendersons live at 141 Bethune Circle, Oak Ridge.

Tee-Off Time Application For Wallace Hills Golf Tournament

Maryville, Tenn.

Saturday, April 24

Foursome

_____, Leader

_____,

_____,

_____,

_____,

Leader's office phone _____

Home phone _____

Tee-off Time Preferred _____

Fill out completely and return to the Recreation Office, Building 9711-5. Deadline for entering is 4:30 p.m. Wednesday, April 21. Tee-off times will be drawn the next day, Thursday, April 22 at 8 a.m.

THE CARBIDE COURIER

Thursday, April 8, 1971

Page 3

Savings Bonds—Questions

Millions of Americans own U. S. Savings Bonds, including many area residents. By enrolling in the Payroll Savings or Bond-A Month Plans, they allow their savings to accumulate automatically as a reserve for emergencies, or for special occasions or purposes — weddings, vacations, retirement, education.

Now and then, Savings Bond owners have questions about their holdings. Here are some of the most frequently asked questions — and the answers . . .

Q.—I have been buying Savings Bonds since they first came out in 1941. How can I determine the amount of interest they have earned?

A.—Bond tellers at banks and many savings and loan associations are willing to assist you. However, you can obtain "Tables of Redemption Values," which show current values of any Series E Bonds you own. The tables are issued every six months, covering the periods January through June and July through December. Send 20 cents — in cash — to Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402. Or, if you wish, send \$1 and request a three-year subscription (six issues).

Q.—I own a number of Series E Bonds, bought through the years. Would it be to my advantage to cash the older Bonds and put the money into current-issue E Bonds, which now pay 5½-percent interest, when held to maturity?

A.—No, for two good reasons. First, the rate you mentioned applies to **all** E Bonds held to maturity or beyond. It works this way. Series E Bonds purchased on or after June 1, 1970, when held to maturity of 5 years, 10 months, earn 5½-percent annual interest

from date of issue to date of maturity. Your E Bonds which have not reached first maturity receive a one-half percent increase in yield for semiannual interest periods, beginning on or after June 1, 1970, payable as a bonus at maturity.

And your E Bonds which have reached first maturity, or are extended beyond first maturity, while the bonus is in effect, will have the ½ percent credited at the end of each semiannual interest period, beginning on or after June 1, 1970, through their next maturity. The bonus on these Bonds is payable whenever they are redeemed. However, there is good reason not to redeem Bonds in this category. If you cashed in your older Bonds, you'd be required to report the gain in value for Federal income tax purposes, during the current year, thus reducing the amount available for purchase of newer bonds. The one-half percent bonus coming at maturity and beyond is an incentive to retain your Bonds.

Q.—There are two widely separate dates stamped or typed on the face of my savings Bonds. How can I determine when they started to earn interest?

A.—U. S. Savings Bonds earn interest from their "issue date," which is the first day of the month in which they are purchased. Below the issue date is a space for the issuing agent's dating stamp — which shows the actual date the Bond is issued. This latter date has no effect on interest accruals or the waiting period for redemption. Thus, if you bought a Savings Bond on January 29, 1971, it would bear the issue date of January 1971, while the agent's dating stamp would read January 29, 1971. Your interest would accrue from Janu-

Adkins, Stores Dept., Dies After Brief Illness

Otha Gene Adkins, 57, Stores Department, Finance and Materials Division,



O. G. Adkins

died in the Baptist Hospital in Knoxville on March 16. He had been ill approximately eight weeks prior to his death.

Adkins had been employed here since October of 1953. Before that he had worked several years for two oil distribution companies in LaFollette and had worked a number of years for the Jellico Coal Company.

Mr. Adkins was born in Jacks-

boro and attended school in Peabody, Tenn. Mrs. Adkins is the former Mary Sue Davis from Lake City. There is one son, Joe Ben, at the Adkins' home, 404 East Ave., LaFollette.

any 1 and, if necessary, the Bond could be redeemed as early as March 1, 1971.

Q.—I've been told that U. S. Savings Bonds are "indestructible." What does that mean?

A.—U. S. Savings Bonds are registered securities. If a Bond is lost, stolen, damaged or destroyed, it will be replaced by the Treasury, at no cost, through the Chicago office of its Bureau of the Public Debt. Over the years — fires, storms, thefts and freak accidents have taken a large toll of U. S. Savings Bonds, but not a penny ever has been lost by the owners.

THE CARBIDE COURIER

Published Biweekly

Editor H. J. Mayberry
K-1002 Building, Tel. 3-3097

Needed: Clear Air; Facts About Pollution

What is "Air"? "Air" is that thin band of mixed gases that envelopes the planet on which we live—it is mostly a mixture of nitrogen and oxygen gases, invisible odorless, tasteless and **indispensable**.

Without air we could not exist. Air is essential to human life, man must breathe it continually to survive. The average person breathes 35 pounds of air each day—six times as much as the food and drink he consumes.

Man needs air to provide oxygen for his blood stream to carry out the metabolic process essential to keep him alive—converting the air to carbon dioxide (CO₂) when it is exhaled.

and yet—**believe it or not—In the U. S. we pollute our air with 140,000,000 tons of "AERIAL GARBAGE" each year!**

1. Carbon Monoxide—This poisonous gas from car exhaust drive out the oxygen in our bloodstream. A large amount can kill; a small amount can cause dizziness, headaches, fatigue—slow our driving reactions. Often exists in tunnels, garages, and heavy traffic. Especially dangerous for people with heart disease, asthma, anemia, etc.

2. Sulphur oxide—These poisonous gases come from factories and plants burning coal or oil containing sulphur—which forms **sulphur dioxide**—a poison that irritates the eyes, nose and throat, damages the lungs, kills plants, rusts metal and reduces visibility.

3. Nitrogen Oxides—Also a result of burning fuels which convert nitrogen and oxygen to Nitrogen Dioxide—can cause a stinking brown haze that irritates the eyes and nose, shuts out sunlight and destroys the view.

4. Hydro-carbon—These are unburned chemicals in combustion, such as car exhaust, which react in air to produce smog. Hydrocarbons have produced cancer in animals, may be the cancer-producing element in cigarette smoke.

5. Particles—Smoke, fly ash, dust, etc. are the solid matter in air. They may settle to ground or stay suspended. They soil clothes, dirty window sills, scatter light, and carry poisonous gases to lungs. They come from autos, fuels, smelters, building materials, fertilizers, etc.

6. Photochemical SMOG—"Photochemical smog" is a mixture of gases and particles oxidized by the sun from products of gasoline and other burning fuels. They irritate the eyes, nose, and throat, make breathing difficult, and damage crops and materials.

(To be continued in next issue)

Carbon Monoxide May Stalk Your Home As Silent, Yet Deadly, Arch Criminal

Do you have a silent killer in your home?

The deadly criminal is carbon monoxide (CO), a colorless, odorless, tasteless gas produced every time a carbon-containing material burns.

These are the criminal's tactics: CO combines with blood 200 times more easily than oxygen. If you breathe the air containing a normal amount of oxygen and a moderate amount of carbon monoxide, your blood will be starved for oxygen.

Here's how to detect the criminal: Dangerous quantities of CO usually accumulate when a cool, slow fire burns in limited air. Since you can't see, smell, or taste it, the gas is hard to detect except by your symptoms—drowsiness, headache, tightness across the forehead, confusion, nausea, and muscular weakness. CO poisoning may confuse you so that you cannot reach fresh air to relieve the symptoms and prevent serious injury.

In order to prevent a CO attack in your home:

1. Have all heating systems checked annually for operating efficiency. Make sure that vents, pipes, flues and chimneys are tight.
2. Make certain that your central heating unit is not starved for air . . . check your filter.

3. Be sure that all heating devices designed for venting are properly vented to the outside.

4. Provide additional fresh air for charcoal grills and hibachis used indoors.

5. Never tamper with ducts or vents of a heating device to get more heat out of it.

6. Be sure that heating devices have been tested by a reputable firm. Follow the manufacturer's recommendations for installation and use.

7. When changing types of fuel, ask a qualified serviceman to adjust all appliances involved.

8. Don't close your fireplace damper until you are certain that the fire is out.

9. Be sure that your garage is sealed from the house. Never run the car in a closed garage.

10. Use your nose to detect smoke that often accompanies carbon monoxide.

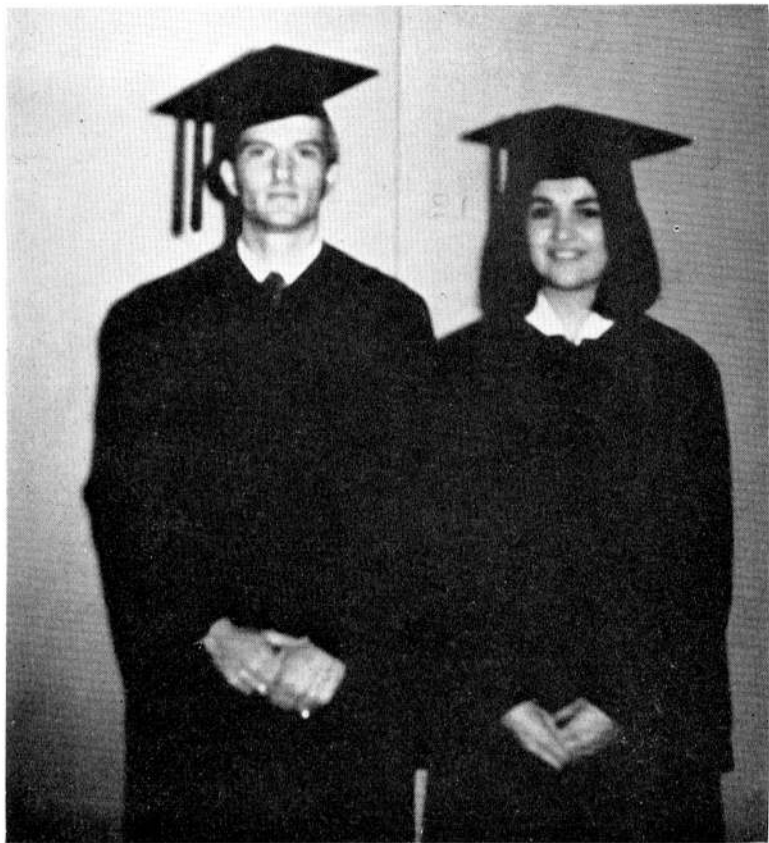
SAFETY SCOREBOARD

OUR PLANT
Has Operated
759,000 Safe Hours
Through April 1

Since last disabling injury on Feb. 9



SAFETY MAGIC SHOW—Four K-25 magicians, from left, Kenneth Deal, Ed Denny, Jerry Love and Frank Gethers have been presenting a safety show entitled 'The Magic of Safety' to divisional safety meetings in the plants. They used legerdemain and subterfuge to illustrate safety principles that are sometimes overlooked. All four are members of the International Brotherhood of Magicians, Ring #58. Denny and Love perform as semi-pro entertainers through the surrounding areas.



John and Susanne Flanders

Lab Notes

Mr. and Mrs. John A. Flanders are recent graduates of the College of Pharmacy of Northeast Louisiana State University in Monroe, La. Flanders is the son of I. C. Flanders, Separations Systems Division; and Mrs. Flanders (Susanne), who graduated "cum laude" is the daughter of Walter L. Ford, Computer Technology. The couple lives in Kingston and is employed by a drug chain in Knoxville.

C. E. Newlon (Chuck) of the Physical Measurements, Inspection & Nuclear Technology Department and his wife, Doty, enjoyed a 10-day cruise from Ft. Lauderdale to the West Indies in February, aboard the 37,000-ton Nieuw Amsterdam. Chuck says it is a wonderful way to take a second (or first) honeymoon. Ports of call included Nassau, St. Thom-

as, Nevis, Barbados, Guadeloupe, St. Croix, and Freeport.

Cost Reduction Reports

The cost reduction reports for the Fabrication and Maintenance Division for January and February of this year indicate a total savings of \$8,751. A total of 10 reports was submitted and employees participated in effecting these reductions in both labor and material costs.

The participating employees are: C. R. Barlow, J. H. Battle, J. G. Brown, L. D. Blakeney (Operations Division), F. W. Calhoun, O. H. Dillon, H. M. Finch, J. D. Forsythe, Jr., E. Hembree, G. H. Hudson, R. D. Hughes, C. C. Hull, T. B. Keylon, L. E. Paulk, M. B. Phillips, L. D. Sweeden, M. B. Tate, H. R. Walls, C. E. Williams, and J. H. Williams.

F. Andrus, Engineering, Retired Here March 31

Francis H. Andrus retired from ORGDP March 31. He was employed as a specifications writer in the Engineering Division. He transferred there last July from Purchasing. He had previously worked in Stores, back to his hire-in date in August, 1945. Prior to coming here, he worked with Maxon Construction Company and Haighin and Hughes.

He served in the U. S. Navy from July 1942, until November, 1944.



F. H. Andrus

Andrus was born in Opelousas, La. He is married to the former Mary Handley. They have three children, Francis H., Jr., Geraldine Davis and William, all living in Birmingham, Ala.

The Andruses live at 653 Lakeshore Dr., Kingston.

Women's Bowling

Mary Foley has recently been getting the lion's share of honors in the K-25 Women's Bowling League. In the March 16 session, she had all the individual high scores with a 209-231 single game and a 554-620 series.

In the March 23 session, Vernice Clower had the best single game, rolling a 209-243 score. Mary Foley had a 492 scratch series and Maxine Gunter had the best handicap series with a total of 603.

Standings

Pay-Offs	33	Pin-Ups	23
Up-Towners	27½	Hot Shots	17½
Wood Bees	26	Bowlettes	15
Spotters	24	Hits & Misses	10

Golf Tournament

Tee-off times for the first ORGDP Golf Tournament of the season to be held at the Whittle Springs Golf Club, Knoxville, may be obtained from the Recreation Office, in front of the Cafeteria, starting Monday, April 19. The tournament will be Saturday, April 24.

Vacation Good Time For Auto Check-Up

Sooner than you think—vacation time will be here. Your family's happiness and well-being may depend on the condition of your car. Use the following check points to help determine whether or not your car is road-worthy. Add an ample measure of caution and discretion to your driving, stop and relax at least every two hours, drink a cup of coffee, let your wife drive as relief, when you get too sleepy to drive well, stop for the night.

"10-Point Safety Check"

1. **Glass**—Is all glass clean, free from cracks, discoloration and unauthorized stickers?
2. **Steering**—Are front wheels properly aligned? Is steering wheel free of excess play?
3. **Rear-view Mirrors**—Are they adjusted for a clear view of the road behind?
4. **Windshield Wipers**—Do they work properly and wipe clearly?
5. **Horn**—Does it work properly?
6. **Front lights and Turn Signals**—Do all lights operate properly? Are head-lights aimed to avoid glare?
7. **Exhaust System**—Is it tight, quiet, and free of leaks?
8. **Brakes**—Do they hold evenly before pedal is one inch from the floor? Will handbrake hold car?
9. **Tires**—Do they have ample

ENTRY BLANK AND AFFIDAVIT ELIGIBLE SPECIES

Bass, Largemouth	Pike, Walleye	Muskie
Bass, Smallmouth	Pike, Sauger	Rock Bass (Red Eye)
Bass, Striped	Crappie	Trout
Rock Fish (Includes Hybrid)	Blue Gill - Bream	

Species _____

Weight _____ lbs. _____ ozs.

Length _____ ins. Girth _____ ins.

Where Caught _____

Date Caught _____

I hereby swear that the above statements are true and that all the rules on the reverse side were complied with. The fish was weighed on tested scales and measured with a tape.

Caught By _____

Plant Address _____ Phone _____

Witness _____ Add. _____

UCN

ANNUAL FISHING CONTEST

K-25

- No Entry Fee -

Open to all UCN K-25 employees. Contest closes midnight December 31.

RULES

1. Each fish entered must be caught by a K-25 employee.
2. Fish must be caught on rod or cane pole during open season and played by one person.
3. Entries must be caught in public waters, in Tennessee or within 150 miles of Oak Ridge.
4. Winning entries identical in weight and measurement will receive identical awards.
5. Contestants will not receive more than one award in each division.
6. Entry must be filled out completely and forwarded to the Recreation Office as soon as possible, (no later than January 13).
7. Five prizes will be awarded in each division.

UCN-373

(1 9-69)

Paging ORGDP Fishermen

The best fishing time of the year is now in full swing. The Recreation Office is already receiving reports of some nice catches and several good size fish.

Why not enter that big one in the Annual K-25 Fishing Rodeo? There are five place winners in

each of 11 species. Winners may select merchandise prizes from several catalogs.

A copy of the entry blank for the Rodeo is reproduced in this issue of the Courier. Entry blanks may be obtained from the Recreation Office in front of the Cafeteria Building.



MILEAGE RECORD—Frank Brannon has driven more than 800,000 miles carrying mail between ORGDP and Oak Ridge over the past 27 years. Added to this is more mileage he logged commuting from his Concord home.

Brannon Logs 800,000 Miles to ORGDP From Oak Ridge, Seeing Mail Through!

Frank Brannon probably holds the mileage record for ORGDP employees. Four times a day for the past 27 years, Brannon has driven from ORGDP to Oak Ridge and back. "Neither rain nor snow, nor gloom of night has stayed this courier from his appointed needs," paraphrasing the motto of the U. S. Post Office, is an apt description of Brannon. This involves

over 30,000 trips with hundreds of tons of mail in transit.

During this time Brannon has driven over 800,000 miles in the Oak Ridge area (including the mileage to and from his home at Route 2, Concord, the total would be well over a million miles.)

Brannon was born in Sevier County and attended school in Sevierville. He is married to the former Mary Alma Moore of Powell. They have a son, Charles E., recently discharged from the U.S. Army. Young Brannon was stationed in the Pentagon in Washington, D.C. at the time of his release from the armed forces.

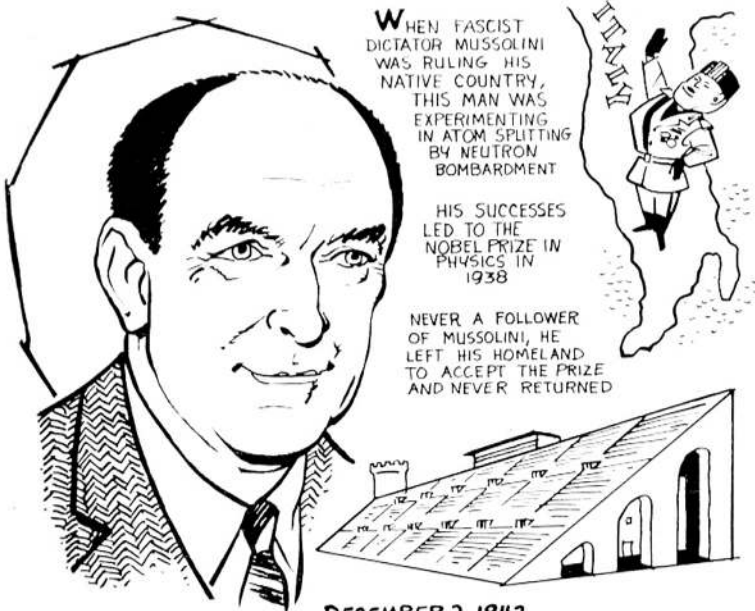
Brannon's outside interests include gardening and yard work.

FAMOUS ATOMIC SCIENTISTS

WHEN FASCIST DICTATOR MUSSOLINI WAS RULING HIS NATIVE COUNTRY, THIS MAN WAS EXPERIMENTING IN ATOM SPLITTING BY NEUTRON BOMBARDMENT

HIS SUCCESSSES LED TO THE NOBEL PRIZE IN PHYSICS IN 1938

NEVER A FOLLOWER OF MUSSOLINI, HE LEFT HIS HOMETOWN TO ACCEPT THE PRIZE AND NEVER RETURNED



ENRICO
FERMI

1901-1954

WITHOUT THIS BRILLIANT ITALIAN PHYSICIST, THE ATOMIC AGE MAY HAVE BEEN DELAYED MANY YEARS. THE U.S. ATOMIC ENERGY COMMISSION PRESENTS A COVETED AWARD WHICH BEARS HIS NAME, TO DISTINGUISHED NUCLEAR SCIENTISTS

DECEMBER 2, 1942

IN A SECRET LAB UNDER THE WEST STANDS OF STAGG FIELD AT THE UNIVERSITY OF CHICAGO, FERMI'S "TEAM" RELEASED THE ENERGY OF THE ATOM AND CONTROLLED IT WITH THE WORLD'S FIRST NUCLEAR REACTOR

Dyer

On The Rise

Gonorrhea Gains 'Respectability'

By T. A. LINCOLN, M.D.

Many parents and some young people believe that gonorrhea is primarily a black man's disease or that it occurs almost exclusively among the hippies, the promiscuous, the uneducated and the poorer classes. It used to be just that, but it has gained new respectability! It is now common among middle class white students in high schools, especially in big cities, and in many colleges and universities. The basic reservoir is still among those working in unskilled occupations having less than a high school education, but the disease is now seen surprisingly often in "freedom seeking," intelligent and sophisticated young people.

The number of reported cases per 100,000 population is now much higher than during World War II, the previous high. The biggest increase has occurred in the 15 to 19 age group, and reported cases have more than doubled in the past 10 years.



Dr. Lincoln

Although only about 10 to 20 percent of cases treated by private physicians are reported to public authorities, they treat over 80 percent of the infections. It has been estimated by experts from the Venereal Disease Branch of the Center for Disease Control in Atlanta that over 2 million infections occur annually.

Promiscuity is not rampant but there are many young people who feel less constrained by parental or social pressures to remain virginal until marriage. Fear of pregnancy has never been a major inhibitor of sexual activity, but the ready availability of contraceptive pills allows greater freedom and does not require a man to wear a condom which would prevent transmission of most infections.

Diagnosis May Be Missed

Gonorrhea will never be controlled until some way is found to easily detect the asymptomatic carrier. Men nearly always have sufficiently painful symptoms to cause them to seek treatment. Even so, about 10 to 15 percent may not have sufficient distress to seek treatment and will become carriers. Even if an infected woman has a physical examination, the diagnosis is easily missed.

The classical approach to venereal disease control has always been interviews with all recent sexual contacts of the individual who comes in for treatment. These interviews are conducted by experienced venereal disease investigators and their only purpose is to bring the contacts in for evaluation and treatment. Unfortunately, they have never succeeded in materially reducing the rate of infection.

Contact Must Be Tracked Down

There are many reasons why they will never succeed. First, there aren't enough of them. Many states depend largely on federal funds to support their venereal disease control programs. Federal money for this purpose is tight and expansion is unlikely. The longer the interval between exposure and interview, the less likely the contact will be found. Women are much less likely to be cooperative in naming contacts than men. Homosexual contacts are difficult to make. They frequently have only one sexual experience per contact. (It may startle some to realize that Kinsey, over 20 years ago, concluded that 46 percent of adult males have both heterosexual and homosexual interests and capacities.) The short incubation period makes it possible for the disease to spread more rapidly than contacts can be followed and treated. Finally, the diagnosis in females is not easy to make and requires a pelvic examination and bacteriological culturing from multiple sites.

The answer appears to be a blood test similar to the one used for diagnosing syphilis. The Venereal Disease Research Laboratory in Atlanta and others are working diligently on such a test. Several tests will be field-tested in 1971. If the 38 million routine blood tests performed in hospitals, clinics, schools and industrial medical departments could be expanded to include a gonorrhea test, then asymptomatic carriers could be found and treated. One of the problems is to find a test with a small percentage of both false positive and false negative results. Conducting expensive follow-up on individuals whose positive was incorrect is expensive and rapidly reduces

Nuclear Division Men Chair Conference For Instrument Society Gatlinburg Meet



B. B. Bell



George H. Job

Two Nuclear Division engineers will act as chairman and co-chairman of the Southeastern Regional Conference and Exhibit of the Instrument Society of America in Gatlinburg next month. B. B. Bell, design department superintendent, Oak Ridge Y-12 Plant, is chairman of the 1971 ISA conference, and George H. Job, design supervisor, Gaseous Diffusion Development Division, at the Oak Ridge Gaseous Diffusion Plant, is acting as co-chairman.

The conference, set May 11, 12 and 13, will feature the national president of ISA, Douglas Strain; and the vice president of the National Society of Professional Engineers, Clarence Jones, as keynote speakers. They will discuss the conference theme, "Orientation—Direction '71," or "where

confidence in the test. Missing cases (false negatives) must also be kept to a minimum if any screening program is to be effective.

No 'Simple' Cure

Treatment of gonorrhea is effective but resistant strains have appeared and follow-up culturing, especially in women, is necessary to prove that a cure has been obtained.

Gonorrhea is not a benign infection which can always be cured by a single "shot" of penicillin. Gonorrheal arthritis in both men and women and pelvic inflammatory disease in women are not rare complications. Infertility is a frequent end result in women.

Until a good blood test becomes available, vigorous follow-up of all diagnosed cases is necessary. It is not enough to treat only the one person who voluntarily comes in for treatment.

Young people urgently need to be taught what gonorrhea is, how it is transmitted, what its consequences may be, and how it can be prevented. Expecting them to remain continent never has and never will be realistic.

are we now and where are we going in instrumentation and engineering."

Many Exhibits

A major attraction of the meeting is 80 exhibits filling both the exhibit hall and the main auditorium of the Gatlinburg Civic Center. Displayed will be special instruments for pollution detection, analytical instruments for biomedical research, instruments related to the textile industry, and many standard and special instruments designed for industrial process control systems. Many other exhibits will display a wide assortment of components, special hardware, and equipment associated with the instrument field.

Specific instruments included in the exhibits will be fluidic controller — which uses a new control principle that requires no moving mechanical parts; solid state logic modules used in complex automatic control systems; computers for data accumulation and industrial process control; and special monitors for the biomedical field.

Interesting Program

Speaking at the morning meetings of the ISA conference will be authorities discussing descriptions of the instrumentation and controls of a nuclear plant, instruments for diagnosing and cardiac monitoring, instruments for monitoring water quality, etc. Local scientists and engineers as well as speakers from other sections will participate in the program.

All interested persons are invited to the conference. A fee of \$3 is charged for non-ISA and non-TSPE members. Conference Chairman Bell will be able to give detailed information.

Hawks Defeat The Pack For Big Volleyball Crown

The Hawks claimed the Volleyball Tournament crown last week, by defeating their old foes, the Pack. The Pack won game one 16-14 . . . then the Hawks returned to win two 15-2 and 15-8!

Beginning their tournament climb, the Hawks defeated the Y-12 Old Men 15-3 and 15-10. They then turned their fury on the Gang and downed them 15-5 and 15-11.

The Pack began their march toward the finals by ousting the Gooneybirds 15-4 and 15-3. They then beat the Set Ups 15-10 and 15-9, after the Set Ups won game one 15-9.

The Set Ups had defeated the ORNL Old Men in initial action 15-7, and 15-7. Back on Court A, the Gang galloped over the Eagles 15-12 and 15-3, as the Eagles won game two 15-6.

GBU's Basketball Heros Undisputed; Tournament Ends

The big GBU's, fresh from the league victory, plowed into the post-season basketball tournament, undoing the Untouchables 65 to 31 in the opener recently. On their way to tournament glory also, they played steady, good ball against the Untouchables without the help of Ace Fred Wetzels, on the bench with an injury. The final score: 65 to 31.

Beta Two Miners decided to make a run for it early, defeating the Wild Bunch 64 to 37. The Milligans, Jim and Ron, were clicking as they led the fast break, feeding big John Scott for easy lay-ups.

Shoestring Win

The James Gang stole past the Bottlenecks 60 to 46. The old pros on the 'Necks squad decided to give the Gang a run for their money, but began steadily falling behind, as they ran out of steam.

The Trojans fell to the Shoestrings 62 to 54, keeping well into the game until the closing moments.

The second night of tournament action saw the Beta Two Miners gain another notch toward finals with a 69 to 47 win over the Hawks. The Miners toyed with the Hawks, as Scott poured 32 big points through the hoop, in his best game to date. Foul trouble plagued the Hawks early in the game.

Quarter-finals saw the 69ers ease by the Shoestrings 69 to 40, as they fired out to an early lead, steadily building it up around the shooting of Harold Conners. Jerry Brown tried to hold back the tide with some good shooting but to no avail, as the second half went all to the 69ers.

GBU's Undo Miners

In semi-finals the 69ers collided with the James Gang, downing them 56 to 43. Beginning strong, the 69ers eased up and the Gang came out with all guns firing. Conners gained 25 big ones for the 69ers; Ken Bell hit 19 for the losing squad.

Meanwhile, the GBU's, untouched, marched past the Beta Two Miners 69 to 57, as the Miners were cold in the first half, getting only two buckets from the floor the first quarter. But they got back with the action and gave the GBU's a run for it in closing minutes.

The big finals saw Harold Conners out-shooting his own record, scoring 34 big points, as the GBU's overcame the 69ers 69 to 65. The game went right down to the wire. Larry McDonald, Bud Defenderfer and Doug Raymer played their usual sterling game. About the time, the 69ers got close, the GBU's would play for the good shot, and surge ahead again!

GBU's Wallop Computes In Inter-Plant Playoffs

The mighty GBU's took Y-12's honor into a championship playoff with the Oak Ridge National Laboratory champs, the Computes, last week.

The GBU's eked out a 75 to 68 victory, out-playing the Computes in the final period of the game.

It was fairly even all the way. The GBU's trailed by three at half time . . . and the game was tied at the end of the third period.

Big Doug Raymer poured 20 through the bucket for the winners; Larry McDonald 17, all in the last half.

NEWS

Published Bi-Weekly For The
Employees Of
UNION CARBIDE
CORPORATION
NUCLEAR DIVISION

JAMES A. YOUNG Editor



Member
Appalachian
Industrial
Editor's
Association

International Association of
Business Communicators

OFFICE

Post Office Box Y
Oak Ridge, Tenn. 37830
Telephone 3-7100 or 3-5345

'Jigging' for Bass Terrific!

EDITOR'S NOTE: Dave Carroll, an employee at Oak Ridge National Laboratory's Biology Division, accepted our invitation to write a guest column for the NUCLEAR DIVISION NEWS. He also writes an outdoors column for TODAY IN OAK RIDGE.

By DAVE CARROLL

Many local fishermen snub the man who jigs for bass, calling the jigger a "meat fisherman" instead of a sportsman. The jigger is also often accused of robbing the lakes of many of the sow bass as they move into the shallow water in the early spring to make their nests.

I wonder how many sport fishermen have really taken the time to try jigging. Any fisherman can propel his boat with a motor while casting a bank for bass. But it takes great skill to silently skull a boat only 12 feet from the bank in order to keep from scaring the lunkers from their hiding places.



Dave Carroll

the main channel was muddy in certain areas.

Harry and I fished practically every inch of the Whites Creek area with a variety of lures without getting a single bite. I then suggested we try some jigging to see if we could change our luck. Harry agreed and we went in search of muddy waters.

Pupil Becomes Teacher

Since I have been engaged in the sport of jigging for about five years now, it was decided that I would work the first bank from the front of the boat, and Harry would observe from the back. Let me say right here that the man who fishes the front of the boat usually does the paddling, and most of the time he is the one who catches the fish. The fisherman in the back will usually jig, too, but usually catches fewer fish.

Several yards of prime bank failed to produce a fish for me, so we went in search of a bank for Harry to try his luck on. This was where the teacher suddenly became pupil and the pupil became pro. We hadn't jigged very far when Harry got his first hit of his jigging career. I won't go into the previous hits he had gotten from stumps, rocks, roots, etc.

'There He Is'

Harry was just crossing over a log with his gob of worms when I heard him say, "There he is." I told him to wait until the fish took the cork under, then set the hook hard. I don't remember seeing the cork sink before. Harry threw the paddle down in the bottom of the boat and set the hook. What happened then surprised both of us. Harry managed to get the lunker's head out of the water, but he couldn't lift the big



GOOD LUCK—Y-12's Harry Conner caught a 9-pound, 1-ounce largemouth bass on his first jigging trip.



Lamar C. Toomer

CTC's Toomer

(Continued from Page 2)

used to supplement the income for the arts from memberships and paid admissions to performances. The drive extends through April and part of May.

Among major benefactors to the United Arts Fund are the City of Oak Ridge, the Oak Ridge Chamber of Commerce, the Oak Ridge Biology Foundation, Inc., and Union Carbide Corporation's Nuclear Division. Other sustaining patrons, sponsors, and major contributors are listed in programs used at events sponsored by Arts Council members.

Toomer, with wide experience as a participant in previous United Arts Fund and United Fund drives, has served as president of the Oak Ridge Civic Ballet Association and as a member of the Arts Council. He has also chaired the finance committees of St. Stephens Episcopal Church and is on the Board of Directors of the Highland Rim Girl Scout Council.

"The response of Oak Ridge businessmen to the United Arts Fund has always been good," Toomer states. "As individuals, many are enthusiastic about the arts organizations. As businessmen, they know that support of the arts generates new business. And they also like the convenience of a joint fund drive, a single solicitation which benefits all six arts groups."

fish any higher. The fish then tail-walked across the water until Harry and I both got over the shock of his size.

Finally, Harry managed to work the fish into the dip net, and I tried to lift it into the boat. It took both hands on the dip net before I could land the lunker. Six more hours of steady fishing, however, failed to produce another single strike. The big largemouth, when weighed later, weighed a scrapping nine pounds, one ounce!

Although many fishermen turn thumbs down on the jiggers, you have to admit it produces results that many bass fishermen never obtain.

United Fund

(Continued from Page 1)

Association for Retarded Children, 8:30 p.m.

April 15: Anderson County Rescue Squad, 7 p.m.; Planned Parenthood Association, 7:45 p.m.; Y.W.C.A., 8:30 p.m.; and Distressed Families Committee, 9:15 p.m.

April 20: Arthritis Clinic, 7 p.m.; Y.M.C.A., 7:45 p.m.; and Holiday Bureau, 8:30 p.m.

April 22: Multiservices Association, 7 p.m.; and Awareness House of Oak Ridge, Inc., 7:45 p.m.

April 24: UFAC Budget Committee Work Session, 1 p.m. Serving with Chairman Smith



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CALENDAR OF EVENTS

TECHNICAL

April 12

Civil Defense Research Project annual information meeting. East Auditorium, Building 4500N, 9 a.m.

April 13

ORNL-NSF environmental lunch hour films: "Pave It and Paint It Green," and "L. A. Too Much." Isotopes Auditorium, Building 3047, 12 noon.

April 14

Nuclear Power Seminar: "Ecological Aspects of Nuclear Plants," S. I. Auerbach, Central Auditorium, Building 4500N, 3 p.m.

April 14-16

Solid State Division information meeting: Central Auditorium, Building 4500N, 9 a.m.

April 15

Biomedical Graduate School student lecture: "Regulation and the Structure of Molluscan Muscles," Andrew G. Szent-Gyorgyi, Brandeis University. Large Conference Room, Building 9207, 3 p.m.

UT Department of Chemistry Seminar: (Title to be announced), Theodore Kuwana, Case Western Reserve University. Room 300, UT Buehler Hall, 1:30 p.m.

April 20

Biology Division Seminar: "Barophysiology," Wallace O. Fenn, University of Rochester School of Dentistry and Medicine. First Floor Tower Annex Conference Room, Building 9207, 12:15 p.m.

April 19-21

Symposium on the Training of Nuclear Facility Personnel. Riverside Motor Lodge, Gatlinburg.

April 20-22

GCR-MSR semiannual information meeting. Oak Ridge National Laboratory.

April 22

Biology Division Seminar: "Ribosomes of Animal Mitochondria," T. W. O'Brien, University of Florida College of Medicine. Large Conference Room, Building 9207, 3 p.m.

Hot Plasma

(Continued from Page 1)

clear research machine called ORMAK (the Oak Ridge version of the Soviet Union's Tokamak).

The ORMAK device was designed at ORNL and fabricated with the assistance of all other Nuclear Division facilities — the Oak Ridge Y-12 Plant, Oak Ridge Gaseous Diffusion Plant, and the Paducah Gaseous Diffusion Plant.

are UF Board Members N. L. Beeler, Mrs. Mary Myer, Ben Phipps, Ralph Shanlever and community-at-large representatives Fred Maienschein and Daniel Altsuler.

COMMUNITY

April 18

Oak Ridge Civic Music Association and City Recreation Department present a Youth Concert by U. T. Jazz Giants. Shep Lauter Room, Civic Center, 3 p.m. Admission: Free.

Art Center Film Club presents "She and He," a Japanese film. Jefferson Junior High School, 8 p.m. Admission: \$1; students \$.75.

April 23

Oak Ridge Playhouse presents "A View from the Bridge," a drama by Arthur Miller. Oak Ridge Playhouse, 8:20 p.m. Other performances April 24 and 30; May 1, 7, and 8. Admission: \$2.50; Fridays only AARP members \$2; students \$1.25.

AARP Group To Hear Civil Defense Expert

The Oak Ridge Chapter of the American Association of Retired Persons will meet at 1 p.m. next Thursday, April 15, in the Social Room of the Civic Center.

Paul Clemmenson will speak on civil defense.

A total of 44 AARP members braved the cold weather for a bus trip to Crossville March 20. After lunch the group attended the comedy "Never Too Late" at the Cumberland County Playhouse.

Mrs. Ben Addison states that several more trips are being planned.

AARP now reports 440 active members. Mrs. E. L. Long, membership chairman, can provide interested parties with applications.

Mrs. Roy Hembree reported at the March meeting on attendance at the area IV AARP conference in Atlanta in late winter.

Softball Meeting Set To Organize Leagues

An organizational meeting for softball teams is set by Recreation next Wednesday, April 14, at 7 p.m. at Central Employment Office, Charlotte Hall, Oak Ridge.

Interested parties should assemble in the lobby to register for summer play.

Meanwhile, Recreation has announced an April 16 cut-off date for entering softball teams. Schedules must be made for play, which will get under way sometime in May.

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